

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-002417**Date Inspected:** 21-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**Location:** Changxing Dao, Shanghai**Quality Control Contact:** Don Walton**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:** Coating Inspection**Bridge No:** 34-0006**Component:** Lift 5 East, Lift 5 West, Cross Beam #4, OBG**Bid Item:** 77, 78, 79**Lot No:** B265**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. James Lumley arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections are to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

OBG 7DW

External undercoated surfaces were "Mist" coated with Interfine 979 after passing specified adhesion, chloride, cure and hardness testing.

Sub-Assemblies

Counterweights 32 & 34 which were previously Finish coated were tested for adhesion of the applied Finish coating (Interfine979)as requested by Caltrans Engineer Sang Le for a comparative analysis to the results received from Fugro Laboratory. The following values were observed: Counterweight 32 Test #1)10.8Mpa #2)10.4 Mpa Counterweight #34 Test #1)11.1Mpa #2)11.2 Mpa. All testing resulted in cohesive failure of undercoat and no inter-coat delamination was observed. Minimum value specified is 5 Mpa.

OBG 8CE

Base metal surfaces of the internal areas of the Bottom and Side Plate "T" Stiffeners were abrasive blasted for VT inspection prior to completely abrasive blasting to an SSPC SP-10 condition. Caltrans QA Larry Viars and Tim McClendon performed VT inspection and mapped deficiencies accordingly. Grinding of burrs, fins, and sharp edges was performed and subsequent re-abrasive blasting from Panel Points 70-71 to end weld seam of the base metal surfaces to an SSPC SP-10 condition and surfaces were coated with Interzinc 22 undercoat.

Lift 5 East

ZPMC requested a "Final" inspection of the internal undercoated surfaces of the "U" Rib stiffeners, FL-2-1, Upper

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Chevron Assemblies and Upper Diaphragm areas from Panel Points 34, 35, 36 to end weld seam. Surfaces were determined to be in general compliance and ZPMC proceeded to remove the access scaffolding. Concurrent with this inspection Panel Points 31,32 33 were also visually inspected and Dry Film Thickness (DFT) randomly checked and deficient areas identified for repairs and re-abrasive blasting to localized mud cracked areas and excessive DFT and re-applied Interzinc 22 undercoat to affected areas.

Lift 5 West

ZPMC requested an inspection for verification of repair work to the East Side Plate areas which exhibited excessive DFT and mud crack. Repairs performed by re-abrasive blasting to base metal and an SSPC SP-10 condition, feathering of the edges and periphery of the adjacent coating and re-application of Interzinc 22 undercoat.

Cross Beam #4

External undercoated surfaces were tested for cure, hardness, and chlorides and subsequent tests enabled the application of "Mist" coating of Interfine 979 to proceed, however application was delayed at the time of inspection.

Note: All inspections were performed jointly with ABF & ZPMC QA/QC representatives and Caltrans QA Lumley when achievable. International Protective Coatings technical service representative were available for inspections and consultation.

Summary of Conversations:

No relevant conversations on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (858) 699-9549, who represents the Office of Structural Materials for your project.

Inspected By:	Lumley,James	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer
